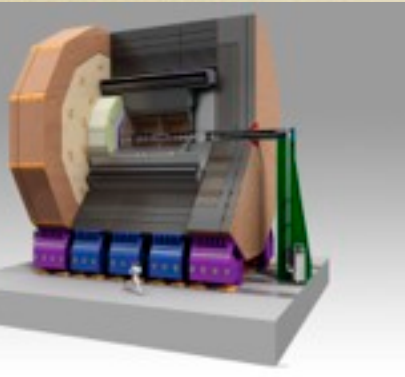


ILD



## Review of Higgs Physics in ILD-DBD

- primary goals of ILC Higgs physics
  - ◆ Determination of Absolute Higgs Couplings (bottom-up approach)
  - ◆ Test the Mechanism of Electroweak Symmetry Breaking and Mass Generation
- framework of ILD simulation in DBD
  - ◆ Mokka and Marlin (GEANT4 based, with Whizard as Generator)
  - ◆ Detailed consideration (Beam spread, ISR,  $\gamma\gamma$ -low-pt BG)
  - ◆ Key Algorithms (Particle Flow, Flavor Tagging, Isolated-Lepton Selection)
- precision measurement @ 250 GeV as a Higgs factory
  - ◆ Recoil mass and Quantum numbers
  - ◆ Total width and Couplings
- physics opportunities @ 500 GeV and 1 TeV
  - ◆ production through WW-fusion
  - ◆ Top-Yukawa coupling
  - ◆ Trilinear Higgs self-coupling